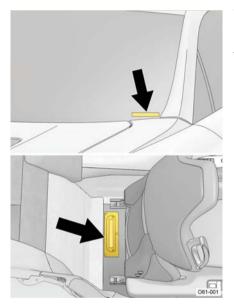
6-1. Specifications

Maintenance data (fuel, oil level, etc.)

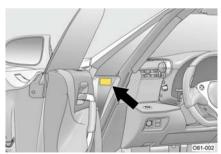
Vehicle identification

n Vehicle identification number

The vehicle identification number (VIN) is the legal identifier for your vehicle. This is the primary identification number for your Lexus. It is used in registering the ownership of your vehicle.

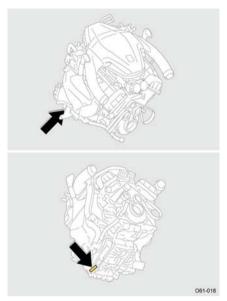


This number is stamped on the top left of the instrument panel and on the floor behind the right seat.



This number is also on the Certification Label.

n Engine number



The engine number is stamped on the bottom of the engine block as shown.

Engine

Model	1LR-GUE
Туре	10-cylinder V type, 4-cycle, gasoline
Bore and stroke	$3.50 \times 3.10 \text{ in.} (88.0 \times 79.0 \text{ mm})$
Displacement	293.2 cu.in. (4805 cm ³)
Drive belt tension	Automatic adjustment

Fuel

Fuel type	Unleaded gasoline only
Octane rating	91 (Research octane number 96) or higher
Fuel tank capacity (Reference)	19.3 gal. (73 L, 16.1 lmp. gal.)

⚠ NOTICE

$n \;\; \text{Fuel precaution}$

Do not use any fuel other than that specified above. Doing so may cause engine damage.

Lubrication system

n Specified engine oil for the LFA

Oil capacity* ¹	With twin air-cooled oil cooler
(Amount of oil required	18.0 qt. (17.0 L, 15.0 lmp. qt.)
for an oil change —	With single air-cooled oil cooler
reference)	16.9 qt. (16.0 L, 14.1 lmp. qt.)
Oil brand* ²	"Mobil 1 5W-50"
Recommended API grade	SM or SN

- *1: The oil filters used are exclusive to the LFA. When the oil is changed, the oil filters should also be replaced.
- *2: The lifetime of the vehicle depends greatly on the quality of oil used. The use of "Mobil 1 5W-50" is most suitable for your vehicle and is recommended.

n Engine oil viscosity

- 1 The 5W portion of the oil viscosity rating indicates the characteristic of the oil which allows cold startability. Oils with a lower value before the W allow for easier starting of the engine in cold weather.
- 1 The 50 in 5W-50 indicates the oil viscosity when the oil is at its operating temperature. An oil with a higher viscosity may be better suited if the vehicle is operated at high speeds, or under extreme load conditions.

⚠ NOTICE

n To prevent engine damage

If "Mobil 1 5W-50" is not available, another oil of equivalent quality to "Mobil 1 5W-50" may be used. In this case, do not start the engine if the engine coolant or oil temperature is below $5^{\circ}F$ (- $15^{\circ}C$), and do not drive the vehicle under extreme load conditions.

Cooling system

Capacity	26.9 qt. (25.5 L, 22.4 lmp. qt.)
Coolant type	Use either of the following. • "Toyota Super Long Life Coolant" • Similar high-quality ethylene glycol-based non-silicate, non-amine, non-nitrite, and non-borate coolant with long-life hybrid organic acid technology Do not use plain water alone.

Ignition system

Spark plug	
Make	DENSO PK22HTBR-L8
Gap	0.032 in. (0.8 mm)

↑ NOTICE

$n \ \ \textbf{Platinum-tipped spark plugs}$

Use specified spark plugs mentioned above. Do not adjust gap when tuning engine.

Electrical system

Battery	
Open voltage* at 68°F (20°C):	12.6 — 12.8 V Fully charged 12.2 — 12.4 V Half charged 11.8 — 12.0 V Discharged (*: Voltage checked 20 minutes after the engine and all the lights are turned off)
Charging rates	5 A max.

Front counter gear

Engine oil	
Oil brand	"Mobil 1 5W-50" (also used for the engine)

Rear transaxle

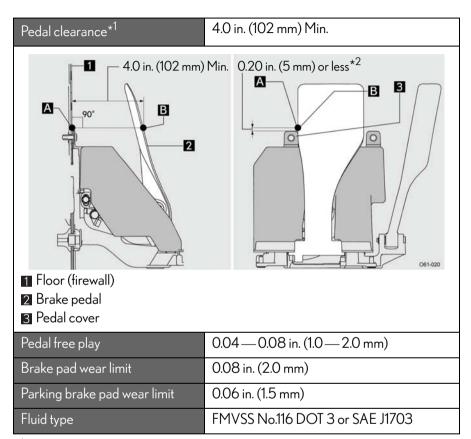
Oil capacity	5.6 qt. (5.3 L, 4.7 lmp. qt.)
Oil type and viscosity	"Toyota Genuine Differential Gear Oil LT 75W-85 GL-5" or equivalent

Your Lexus vehicle is filled with "Toyota Genuine Differential Gear Oil" at the factory. Use Lexus approved "Toyota Genuine Differential Gear Oil" or an equivalent of matching quality that satisfies the above specifications. Please contact your Lexus dealer for further details.

Clutch & Shift Hydraulic System Fluid

Fluid type	"Toyota Genuine Brake Fluid 2500H" (change not needed)

Brakes



^{*1:} Minimum horizontal distance between \blacktriangle and \blacksquare when the pedal is depressed with a force of 45 lbf (200 N, 20 kgf) while the engine is idling.

^{*2:} Upper side of pedal cover

⚠ NOTICE

n Precaution for CCM (Carbon Ceramic Material) brake discs

Be careful not to subject the CCM brake discs to any kind of strong impact. Even if there is no obvious damage, in the following situations, have the vehicle inspected by your Lexus dealer:

- 1 If the vehicle is involved in an accident that may affect the suspension and wheels
- 1 If a CCM brake disc sustains an impact during the removal or installation of the wheels
- 1 If the brake pads have worn out and the metal part of the pad is in contact with the CCM brake disc surface

Steering

Free play

Less than 0.6 in. (15 mm)

Tires and wheels

Tire size	265/35ZR20 (95Y), 305/30ZR20 (99Y)	
Front and rear tire inflation pressure (Recommended cold tire inflation pressure)	Front: 33 psi (230 kPa, 2.3 kgf/cm² or bar) Rear: 33 psi (230 kPa, 2.3 kgf/cm² or bar) Driving at high speeds (above 155 mph [250 km/h]) (in countries where such speeds are permitted by law) Add 8 psi (50 kPa, 0.5 kgf/cm² or bar) to the front tires and rear tires. Never exceed the maximum cold tire inflation pressure indicated on the tire sidewall.	
Wheel size	Front: 20 × 9 1/2J Rear: 20 × 111/2J	
Wheel bolt torque	81 ft•lbf (110 N•m, 11.2 kgf•m)	

Light bulbs

	Light Bulbs	Bulb No.	W	Туре
	Headlight low/high beams	_	35	Α
	Front turn signal lights		21	В
	Front side marker lights	194	3.8	С
Exterior	Rear turn signal lights	7440	21	С
	Rear side marker lights		5	С
	Back-up lights	_	21	D
	License plate lights		5	С
Interior —	Luggage compartment light		3.8	С
	Door courtesy lights	_	3.8	С

A: D4S discharge bulbs

B: Wedge base bulbs (amber)

C: Wedge base bulbs (clear)

D: Single end bulbs

6-1. Specifications

Fuel information

Your vehicle must use only unleaded gasoline.

Premium unleaded gasoline with an octane rating of 91 (Research Octane Number 96) or higher is required for optimum engine performance.

At minimum, the gasoline you use should meet the specifications of ASTM D4814 in the U.S.A. and CGSB3.5-M93 in Canada.

n Fuel tank opening for unleaded gasoline

To help prevent incorrect fueling, your vehicle has a fuel tank opening that only accommodates the special nozzle on unleaded fuel pumps.

n Gasoline quality

In very few cases, driveability problems may be caused by the brand of gasoline you are using. If driveability problems persist, try changing the brand of gasoline. If this does not correct the problem, consult your Lexus dealer.

n Gasoline quality standards

- 1 Automotive manufacturers in the U.S.A., Europe and Japan have developed a specification for fuel quality called the World-Wide Fuel Charter (WWFC), which is expected to be applied worldwide.
- 1 The WWFC consists of four categories that are based on required emission levels. In the U.S., category 4 has been adopted.
- 1 The WWFC improves air quality by lowering emissions in vehicle fleets, and improves customer satisfaction through better performance.

${f n}$ Recommendation of the use of gasoline containing detergent additives

- 1 Lexus recommends the use of gasoline that contains detergent additives to avoid the build-up of engine deposits.
- 1 All gasoline sold in the U.S.A. contains detergent additives to clean and/or keep clean intake systems.

n Recommendation of the use of cleaner burning gasoline

Cleaner burning gasoline, including reformulated gasoline that contains oxygenates such as ethanol or MTBE (Methyl Tertiary Butyl Ether) is available in many areas.

Lexus recommends the use of cleaner burning gasoline and appropriately blended reformulated gasoline. These types of gasoline provide excellent vehicle performance, reduce vehicle emissions and improve air quality.

n Non-recommendation of the use of blended gasoline

- Lexus allows the use of oxygenate blended gasoline where the oxygenate content is up to 10% ethanol or 15% MTBE.
- 1 If you use gasohol in your vehicle, be sure that it has an octane rating no lower than 87.
- 1 Lexus does not recommend the use of gasoline containing methanol.

n Non-recommendation of the use of gasoline containing MMT

Some gasoline contains an octane enhancing additive called MMT (Methylcyclopentadienyl Manganese Tricarbonyl).

Lexus does not recommend the use of gasoline that contains MMT. If fuel containing MMT is used, your emission control system may be adversely affected.

The malfunction indicator lamp on the instrument cluster may come on. If this happens, contact your Lexus dealer for service.

n If your engine knocks

- 1 Consult your Lexus dealer.
- 1 You may occasionally notice light knocking for a short time while accelerating or driving uphill. This is normal and there is no need for concern.



NOTICE

n Notice on fuel quality

- 1 Do not use any fuel other than that specified. If improper fuels are used the engine will be damaged.
- 1 Do not use leaded gasoline. Leaded gasoline can cause damage to your vehicle's three-way catalytic converters causing the emission control system to malfunction.
- 1 Do not use gasohol other than the type previously stated. Other gasohol may cause fuel system damage or vehicle performance problems.

n Fuel-related poor driveability

If poor driveability is encountered after using a different type of fuel (poor hot starting, vaporization, engine knocking, etc.), discontinue the use of that type of fuel.

n When refueling with gasohol

Take care not to spill gasohol. It can damage your vehicle's paint.

Tire information

Typical tire symbols



- 11 Tire size $(\rightarrow P. 373)$
- **2** TUBELESS or TUBE TYPE

A tubeless tire does not have a tube and air is directly put into the tire. A tube type tire has a tube inside the tire and the tube maintains the air pressure.

- Radial tires or bias-ply tires
 A radial tire has "RADIAL" on the sidewall. A tire not marked "RADIAL" is a bias-ply tire.
- Uniform tire quality grading For details, see "Uniform Tire Quality Grading" that follows.

5 DOT and Tire Identification Number (TIN) $(\rightarrow P.372)$

Tire ply composition and materials

Plies are layers of rubber-coated parallel cords. Cords are the strands which form the plies in a tire.

 \blacksquare Load limit at maximum cold tire inflation pressure (→P. 273)

 \blacksquare Maximum cold tire inflation pressure $(\rightarrow P.366)$

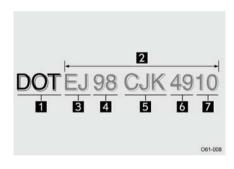
This means the pressure to which a tire may be inflated.

 \bigcirc Location of treadwear indicators $(\rightarrow P. 270)$

 \square Summer tires or all season tires $(\rightarrow P. 273)$

An all season tire has "M+S" on the sidewall. A tire not marked "M+S" is a summer tire.

Typical DOT and Tire Identification Number (TIN)

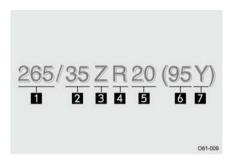


- 1 DOT symbol*
- 2 Tire Identification Number (TIN)
- Tire manufacturer's identification mark
- 4 Tire size code
- Manufacturer's optional tire type code (3 or 4 letters)
- 6 Manufacturing week
- Manufacturing year
 - *:The DOT symbol certifies that the tire conforms to applicable Federal Motor Vehicle Safety Standards.

Tire size

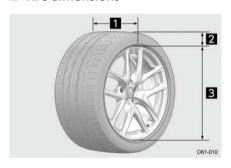
n Typical tire size information

The illustration indicates typical tire size.



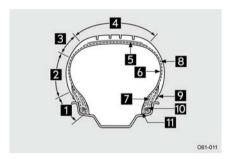
- Section width (millimeters)
- Aspect ratio
 (tire height to section width)
- Speed category (alphabet with one letter)
- Tire construction code (R = Radial, D = Diagonal)
- 5 Wheel diameter (inches)
- 6 Load index (2 digits or 3 digits)
- Speed symbol (alphabet with one letter)

n Tire dimensions



- Section width
- 2 Tire height
- Wheel diameter

Tire section names



- 1 Bead
- 2 Sidewall
- **3** Shoulder
- 4 Tread
- **5** Belt
- 6 Inner liner
- 7 Reinforcing rubber
- 8 Carcass
- **9** Rim lines
- **10** Bead wires
- 11 Chafer

Uniform Tire Quality Grading

This information has been prepared in accordance with regulations issued by the National Highway Traffic Safety Administration of the U.S. Department of Transportation.

It provides the purchasers and/or prospective purchasers of Lexus vehicles with information on uniform tire quality grading.

Your Lexus dealer will help answer any questions you may have as you read this information.

n DOT quality grades

All passenger vehicle tires must conform to Federal Safety Requirements in addition to these grades. Quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width.

For example: Treadwear 200 Traction AA Temperature A

n Treadwear

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course.

For example, a tire graded 150 would wear one and a half (1 - 1/2) times as well on the government course as a tire graded 100.

The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

n Traction AA, A, B, C

The traction grades, from highest to lowest, are AA, A, B and C, and they represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete.

A tire marked C may have poor traction performance.

Warning: The traction grade assigned to this tire is based on braking (straight ahead) traction tests and does not include cornering (turning) traction.

n Temperature A, B, C

The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel.

Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure.

The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 139.

Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

Warning: The temperature grades for this tire are established for a tire that is properly inflated and not overloaded.

Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.

Glossary of tire terminology

Tire related term	Meaning
Accessory weight	The combined weight (in excess of those standard items which may be replaced) of automatic transmission, power steering, power brakes, power windows, power seats, radio and heater, to the extent that these items are available as factory-installed equipment (whether installed or not)
Cold tire inflation pressure	Tire pressure when the vehicle has been parked for three hours or more, or has not been driven more than 1 mile or 1.5 km under that condition
Curb weight	The weight of a motor vehicle with standard equipment, including the maximum capacity of fuel, oil and coolant, and if so equipped, air conditioning and additional weight optional engine
Maximum inflation pressure	The maximum cold inflated pressure to which a tire may be inflated, shown on the sidewall of the tire
Maximum loaded vehicle weight	The sum of: (a) Curb weight (b) Accessory weight (c) Vehicle capacity weight (d) Production options weight
Normal occupant weight	150 lb. (68 kg) times the number of occupants specified in the second column of Table 1* that follows
Production options weight	The combined weight of installed regular production options weighing over 5 lb. (2.3 kg) in excess of the standard items which they replace, not previously considered in curb weight or accessory weight, including heavy duty brakes, ride levelers, roof rack, heavy duty battery, and special trim

Tire related term	Meaning		
Vehicle capacity weight (Total load capacity)	The rated cargo and luggage load plus 150 lb. (68 kg) times the vehicle's designated seating capacity		
Occupant distribution	Distribution of occupants in a vehicle as specified in the third column of Table 1* below		
Recommended inflation pressure	Cold tire inflation pressure recommended by a manufacturer.		
Rim	A metal support for a tire or a tire and tube assembly upon which the tire beads are seated		
Rim diameter (Wheel diameter)	Nominal diameter of the bead seat		
Rim size designation	Rim diameter and width		
Rim type designation	The industry manufacturer's designation for a rim by style or code		
Rim width	Nominal distance between rim flanges		
Vehicle maximum load on the tire	The load on an individual tire that is determined by distributing to each axle its share of the maximum loaded vehicle weight, and dividing by two		
Vehicle normal load on the tire	The load on an individual tire that is determined by distributing to each axle its share of curb weight, accessory weight, and normal occupant weight (distributed in accordance with Table 1* below), and dividing by two		
Weather side	The surface area of the rim not covered by the inflated tire		
Bead	The part of the tire that is made of steel wires, wrapped or reinforced by ply cords and that is shaped to fit the rim		
Bead separation	A breakdown of the bond between components in the bead		

Tire related term	Meaning	
Bias ply tire	A pneumatic tire in which the ply cords that extend to the beads are laid at alternate angles substantially less than 90 degrees to the centerline of the tread	
Carcass	The tire structure, except tread and sidewall rubber which, when inflated, bears the load	
Chunking	The breaking away of pieces of the tread or sidewall	
Cord	The strands forming the plies in the tire	
Cord separation	The parting of cords from adjacent rubber compounds	
Cracking	Any parting within the tread, sidewall, or innerliner of the tire extending to cord material	
СТ	A pneumatic tire with an inverted flange tire and rim system in which the rim is designed with rim flanges pointed radially inward and the tire is designed to fit on the underside of the rim in a manner that encloses the rim flanges inside the air cavity of the tire	
Extra load tire	A tire designed to operate at higher loads and at higher inflation pressures than the corresponding standard tire	
Groove	The space between two adjacent tread ribs	
Innerliner	The layer(s) forming the inside surface of a tubeless tire that contains the inflating medium within the tire	
Innerliner separation	The parting of the innerliner from cord material in the carcass	

Tire related term	Meaning		
Intended outboard side- wall	 (a) The sidewall that contains a whitewall, bears white lettering, or bears manufacturer, brand, and/or model name molding that is higher or deeper than the same molding on the other side wall of the tire, or (b) The outward facing sidewall of an asymmetrical tire that has a particular side that must always face outward when mounted on a vehicle 		
Light truck (LT) tire	A tire designated by its manufacturer as primarily intended for use on lightweight trucks or multipurpose passenger vehicles		
Load rating	The maximum load that a tire is rated to carry for a given inflation pressure		
Maximum load rating	The load rating for a tire at the maximum permissible inflation pressure for that tire		
Maximum permissible inflation pressure	The maximum cold inflation pressure to which a tire may be inflated		
Measuring rim	The rim on which a tire is fitted for physical dimension requirements		
Open splice	Any parting at any junction of tread, sidewall, or innerliner that extends to cord material		
Outer diameter	The overall diameter of an inflated new tire		
Overall width	The linear distance between the exteriors of the side- walls of an inflated tire, including elevations due to labeling, decorations, or protective bands or ribs		
Passenger car tire	A tire intended for use on passenger cars, multipurpose passenger vehicles, and trucks, that have a gross vehicle weight rating (GVWR) of 10000 lb. or less.		
Ply	A layer of rubber-coated parallel cords		

Tire related term	Meaning	
Ply separation	A parting of rubber compound between adjacent plies	
Pneumatic tire	A mechanical device made of rubber, chemicals, fabric and steel or other materials, that, when mounted on an automotive wheel, provides the traction and contains the gas or fluid that sustains the load	
Radial ply tire	A pneumatic tire in which the ply cords that extend to the beads are laid at substantially 90 degrees to the centerline of the tread	
Reinforced tire	A tire designed to operate at higher loads and at higher inflation pressures than the corresponding standard tire	
Section width	The linear distance between the exteriors of the sidewalls of an inflated tire, excluding elevations due to labeling, decoration, or protective bands	
Sidewall	That portion of a tire between the tread and bead	
Sidewall separation	The parting of the rubber compound from the cord material in the sidewall	
Snow tire	A tire that attains a traction index equal to or greater than 110, compared to the ASTM E-1136 Standard Reference Test Tire, when using the snow traction test as described in ASTM F-1805-00, Standard Test Method for Single Wheel Driving Traction in a Straight Line on Snow-and Ice-Covered Surfaces,	
	and which is marked with an Alpine Symbol (🔬) on at least one sidewall	
Test rim	The rim on which a tire is fitted for testing, and may be any rim listed as appropriate for use with that tire	
Tread	That portion of a tire that comes into contact with the road	

Tire related term	Meaning		
Tread rib	A tread section running circumferentially around a tire		
Tread separation	Pulling away of the tread from the tire carcass		
Treadwear indicators (TWI)	The projections within the principal grooves designed to give a visual indication of the degrees of wear of the tread		
Wheel-holding fixture	The fixture used to hold the wheel and tire assembly securely during testing		

^{*:} Table 1 — Occupant loading and distribution for vehicle normal load for various designated seating capacities

Designated seating capacity, Number of occupants	Vehicle normal load, Number of occupants	Occupant distribution in a normally loaded vehicle
2 through 4	2	2 in front
5 through 10	3	2 in front, 1 in second seat
11 through 15	5	2 in front, 1 in second seat, 1 in third seat, 1 in fourth seat
16 through 20	7	2 in front, 2 in second seat, 2 in third seat, 1 in fourth seat